

# PROCEEDINGS OF THE ROYAL ENTOMOLOGICAL SOCIETY OF LONDON

## SERIES C. JOURNAL OF MEETINGS

VOLUME 12

No. 5, 1947

### GENERAL MEETING

WEDNESDAY, 7TH MAY, 1947, at 5.30 p.m.

#### AGENDA

1. Confirmation of the Proceedings of the General Meeting held on 2nd April, 1947.
2. Recommendations of candidates for Fellowship.
3. Announcement of election of new Fellows.
4. Additions to the Library.

#### *Presented.*

- Maeterlinck, M. *La vie des termites*. 8vo. Paris, 1927. [Mrs. I. M. T. Welti.]
- Kusnezov, N. J. *A revision of the Amber Lepidoptera*. 8vo. Moscow, 1941. [The Author.]
- Livadas, G. A., and Belios, G. D. *Malaria control activities in Greece during 1946*. Folio. Athens, 1946.
- Carpenter, S. J., Middlekauff, W. W., and Chamberlain, R. W. Mosquitoes of the Southern United States, east of Oklahoma and Texas. *Amer. Midl. Nat.* 3 : 1-292, 1946.
- Steinhaus, E. A. *Insect microbiology*. 4to. New York, 1946.
- Borg, P. *The Lepidoptera of the Maltese Islands*. 8vo. Malta, 1932. [Dr. C. Lucca.]
- Bert, P. *First year of scientific knowledge*. 12mo. London, 1888. [Mr. A. Welti.]

In addition, separates have been presented by Mr. D. G. Sevastopulo, Mr. M. Niblett, The Smithsonian Institution, The Imperial Institute of Entomology, Mr. Austin Richardson, the Los Angeles County Museum, and the Waite Agricultural Research Institute, Adelaide.

5. Admission of Fellows.
6. Communications.

#### (1) Dr. W. H. Thorpe.

Organs sensitive to changes in pressure in aquatic insects.

#### [Abstract.]

The ability to respond to changes of pressure with changes in depth is likely to be an important means of orientation in adult aquatic insects which have to make periodic visits to the surface, and must avoid going too deep.

Probably most such insects possess a certain very rough pressure sense

mediated by simple sense organs in the cuticle which are sensitive to major stresses and strains. In addition, insects which carry substantial air bubbles with them (e.g., *Notonecta* and *Hydrophilus*), and are therefore much lighter than water, can probably appreciate very slight changes in volume of the bubble by means of fine tactile setae among the hydrofuge hairs which help to hold the bubble in place. But insects which do not carry large air stores with them apparently need highly specialised organs sensitive to pressure changes. Thus *Nepa* and *Aphelocheirus* both have very remarkable and elaborate organs of special pressure sense (Thorpe, W. H., and Crisp, D. J., *J. exp. Biol.*, in press). These organs will be described and their mode of action discussed. The organ systems of both these insects, though of very different design and working on different principles, are of such high sensitivity that they can function as organs of equilibrium in addition to serving for orientation.

(2) **Mr. F. L. Vanderplank.**

- (a) The functions of the respiratory lobes and pupation of the larva of the Tsetse-fly (*Glossina* species).

[Abstract.]

An account will be given of experiments done on the respiratory lobes and the pupation hormones in the larvae of *Glossina* species. The main function of the lobes is to supply oxygen between birth and pupation of the larvae, and they do not appear to have any important function before birth or after pupation.

- (b) The structure and some of the functions of the halteres of Tsetse-flies (*Glossina* species).

[Abstract.]

An account will be given of the structure of the halteres, and of experiments made in their functions. The halteres control the wing-beat frequencies in the young fly, but are more important in regulating the amplitude of the wing-beat and maintaining the fly's balance both while in flight and while walking and at rest. The squamae are also involved.

- (3) Communications and exhibits the titles of which have been received since the circulation of these agenda.

**Fellows are particularly requested to bring suitable exhibits to the General Meetings even though it may not be possible to announce their intention to do so before the meeting.**

If circumstances permit tea will be served in the Library before the meeting.

### SPECIAL NOTICE

Council give notice in accordance with the Bye-Laws, Chapter XXV, that a **Special General Meeting will be held on Wednesday, 4th June**, immediately before the General Meeting, to consider the following proposed alteration of the Bye-Laws, viz :—

CHAPTER XV. *Admission Fee and Annual Contribution.*

- ¶ 1. Line 1, delete "Three Guineas" and substitute "Two Guineas."
- ¶ 2. Line 2, delete "Two Guineas" and substitute "Three Guineas."
- ¶ 3. Line 1, delete "Two Guineas" and substitute "Three Guineas."



PROCEEDINGS OF THE GENERAL MEETING HELD ON 2ND APRIL, 1947.

Dr. C. B. Williams, M.A., President, in the Chair.

Present, 56 Fellows and 4 Visitors.

The minutes of the meeting held on 19th March were confirmed, and signed by the President.

The names of the following candidates for election were read : For the first time, J. Hrbáček, Lt.-Col. W. B. L. Manley, and A. Ibbotson.

For the second time : A. S. C. Deans.

The Secretary read the names of the following newly elected Fellows of the Society : D. W. Hall, B.Sc., 20, Ashley Terrace, Alloa, Clackmananshire; Professor V. V. Hickman, B.A., D.Sc., c/o The Royal Society of Tasmania, The Tasmanian Museum, Hobart ; R. R. U. Kaufmann, Terra Nova, Holmes Chapel, Cheshire ; R. M. Mere, M.A., Pembroke Lodge, Steepways, Hindhead, Surrey.

Thanks were voted to donors of gifts to the Library since the last meeting.

Mr. J. H. Armit, Mr. R. C. Dyson, Mr. I. R. H. Allan, Mr. R. A. Davis, Mr. C. W. Mackworth-Praed, Dr. E. B. Edney, Mr. A. E. Curtis and Mr. J. F. Gates Clarke signed the Obligation Book and were admitted Fellows of the Society.

On behalf of the President of the Entomological Society of Washington, Mr. J. F. Gates Clarke, of the United States National Museum, read a short letter of greetings, which was much appreciated. Mr. Clarke also conveyed to the Society the good wishes of the Entomological Department of the United States Department of Agriculture and of the United States National Museum.

Communications were made by Mr. R. L. E. Ford, Mr. G. E. J. Nixon, and Dr. C. B. Williams, abstracts of which appeared on pp. 13-14.

Captain R. A. Jackson, R.N., Dr. V. B. Wigglesworth, F.R.S., Mr. R. S. D. Balter, Dr. C. B. Williams, Mr. S. E. Wace Carlier and Dr. A. M. Massee took part in the discussion following Mr. Ford's communication ; and Dr. O. W. Richards, Mr. C. N. Hawkins, Mrs. K. J. Richardson and Captain R. A. Jackson, R.N., in that following Mr. Nixon's communication. Dr. H. E. Hinton and Dr. V. B. Wigglesworth, F.R.S., joined in the discussion following Dr. Williams' communication.

In addition, Mr. D. G. Sevastopulo exhibited a number of blown larvae of Indian Lepidoptera to illustrate Professor Carpenter's remarks at the previous meeting.

Mr. S. E. Wace Carlier exhibited a number of Microlepidoptera mounted on celluloid. They were secured by the use of gloy, other adhesives, including celluloid solutions, having proved less satisfactory. He claimed that in this way the safety of the specimens was secured better than by the regular orthodox methods. He also exhibited the following Coleoptera from Gloucestershire, hitherto generally regarded as mainly confined to S.E. England : *Meligethes solidus* Kugelann, *Mantura matheresii* Curtis (exceedingly abundant in 1940), *Aphthona herbigrada* Curtis (abundant in most years), *Bruchidius unicolor* var. *debilis* Gyllenhal (very common on *Helianthemum*), *Apion waltoni* Stephens (?) (on *Hippocrepis comosa*, not on *Anthyllis vulneraria*) and *Apion rubens* Stephens (?) on *Rumex acetosella*.

N. D. RILEY, *Honorary Secretary.*

The next meeting will be held on Wednesday, 4th June, at 5.30 p.m.

#### ADMISSION OF FELLOWS

Any Fellow who has not been formally admitted to the Society under Chapter XIV, Section 4 of the Bye-Laws and attends the meeting on 7th May, 1947, is requested to inform the Secretary before 5.15 p.m. on that date.

## NOTICES

In addition to the *Transactions* and *Proceedings* (Series A, B, and C), the following publications are available on application at the Society's rooms :—

THE GENERIC NAMES OF BRITISH INSECTS, prepared by the Committee on Generic Nomenclature of the Royal Entomological Society of London, with the assistance of the Department of Entomology of the British Museum (Natural History) :

- Part 1. Recommendations relating to the publication of the committee's reports . . . . . price 6*d*.
- Part 2. The generic names of the British Rhopalocera with a check list of the species . . . . . price 3*s*. 6*d*.
- Part 3. The generic names of the British Odonata with a check list of the species . . . . . price 3*s*. 6*d*.
- Part 4. The generic names of the British Neuroptera, with a check list of the British species . . . . . price 3*s*. 6*d*.
- Part 5. The generic names of the British Hymenoptera Aculeata, with a check list of the British species . . . . . price 15*s*. 0*d*.
- Part 6. The generic names of the British CARABIDAE, with a check list of the British species . . . . . price 10*s*. 0*d*.
- Part 7. The generic names of the British Hydradephaga, with a check list of the British species . . . . . price 5*s*. 0*d*.
- Part 8. The generic names of the British Hemiptera-Heteroptera, with a check list of the British species . . . . . price 39*s*. 0*d*.

STYLOPS, a Journal of Taxonomic Entomology.

1932-1935. Vols. 1-4 (all issued). Price £1 16*s*. 0*d*. each ; to Fellows, £1 7*s*. 0*d*.

ABSTRACT OF PROCEEDINGS OF THE ROYAL ENTOMOLOGICAL SOCIETY OF LONDON. 1935. Nos. 1-6 (all issued). 3*s*. 0*d*.

HUBNER : A BIBLIOGRAPHICAL AND SYSTEMATIC ACCOUNT OF THE ENTOMOLOGICAL WORKS OF JACOB HUBNER AND THE SUPPLEMENTS THERETO. In 2 vols. By Francis Hemming.

Price Vol. 1. 605 pp. £1 15*s*. 0*d*.

„ Vol. 2. 275 pp. 15*s*. 0*d*.

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